## Food-tech, meet our community

We invite you to meet our community and discover its success story!

Based on a history of over 100 years of Agrifood innovation, Brabant is a center of excellence in Agrifood technology, component manufacturing and machine building due to its strong food processing cluster with a drive to innovate. Companies are involved in process technology and optimization, maintenance and inspection services, handling machines, packaging machines, air treatment and climate control, system cabinets, (quality) control equipment and – again – the full supply chain with regards to parts and components. These dedicated innovators aim to make food production as sustainable as possible.





#### TODAY

The Brabant food industry has been active in developing processes and technologies for the more efficient use of plant-based raw materials and upgrading (commercialising) residual flows for over a decade.

It was and still is in part a reason for the success stories of many of the very large raw material/food processing companies in the region, such as Royal Cosun/Cosun Beet Company (beet sugar), Cargill (starch), Mars (chocolate bars), Danone Nutricia (infant nutrition) and Unilever (soup).

#### TOMORROW

But today the suppliers to these major food producers are leading the way in new processing technology, as are consor-tiums of SMEs that develop food products on the basis of residual flows or new conservation techniques.

Companies and institutes in Brabant, large and small, are active in:

- Separating residual flows
- Commercialising side and residual flows
- Separating and conserving of nutrients
- Reducing energy and water consumption
- Preventing of nitrogen and CO<sub>2</sub> emissions



# Why Brabant excels in Food-tech

#### KEY LOCATIONS



**Key locations in Food-tech**, such as Food Tech Brainport Helmond, Campus Almkerk, Agro & Food Cluster Nieuw Prinsenland, GrowWise Research Center by Signify, Plantlab, AppsforAgri and Byflow.

### EXCELLENT RESEARCH INFRASTRUCTURE



#### Research & development in Food-tech by institutes such as HAS Expertise & Research Centres, Technical University Eindhoven, JADS Applied Research lab data & agrifood, Holst Centre, TNO. IMEC.

### INTENSE COOPERATION AGRIFOOD AND FOODTECH



AgriFood and Food-tech are cooperating intensively and developing the solutions for global sustainable food production. More than 30% of the 1,600 hightech companies in Brabant are active in the Agrifood sector.



## Our Ecosystem

### World Class Research

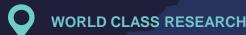
Within a radius of 150 km around Brabant, there are 27 universities in three countries: a total of 605,340 students, 255,680 of which in the field of nature, health or technology. These are the leading research institutes for Food-tech.



Den Bosch







- HAS Expertise & Research Center (Den Bosch)
  distinguishes itself in the Agrifood educational sector
  because of its focus on working together with farmers
  and the food industry.
- 2. JADS Applied Research Lab Data & Agrifood (Den Bosch) offers data science bachelor and master programs, PDEng education, professional education and help organizations shape their data driven future. The Agrifood industry is a priority Industry to JADS.
- 3. University of Technology (Eindhoven) is a research university specializing in engineering science & technology. The university is involved in, among other things, using new extraction and drying techniques and digital food processing.
- 4. Holst Centre, TNO, IMEC (Eindhoven) is an independent open-innovation R&D centre that develops generic technologies for Wireless Autonomous Sensors and for Flexible Electronics. These sensors can be implemented for detection of plant diseases and to measure the quality of water, air and plants.





Brabant accounts for 13.912 Agrifood companies and 17,3% of all jobs of the total Agrifood sector in the Netherlands. These are the leading companies in the field of Food-tech.



#### **LEADING COMPANIES**

- Marel's principal site is in Boxmeer in Brabant with 1,500 employees and is also the global headoffice and R&D centre for all of Marel's poultry processing activities.
- 2. **byflow** is the market leader in the world of 3D food printing, based at the High Tech Campus.
- **3.** Tummers Food Processing Solutions is market leader in food production lines.
- **4. Bodec** is a leading innovator in Agrifood driving innovations and experiments in which colours, flavors, protein and fibres can be used for food applications.
- **5. Pascal Processing** is the first and most complete European one-stop shop for HPP (new preservation techniques).
- 6. KSE Process Technology specializes in weighing systems and smart automation software for the animal feed industry.



## State-of-the-art facilities

#### Food Tech Brainport Helmond

**Food Tech Brainport** brings together technology providers, food processing companies and talent. This way innovation is accelerated and products manufactured with longer shelf life, without compromising on taste or nutritional value, reduce food waste, and lower energy consumption.



#### **OBJECTIVES**

- To feed more people and to use the earth's resources more sparingly.
- Food Tech Brainport provides support for the entire process, from product development through to production and market introduction.
- Food Tech Park Brainport welcomes startups, SMEs and multinational companies.



#### **KEY CHARACTERISTICS**

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#### **APPLICATION AREAS**

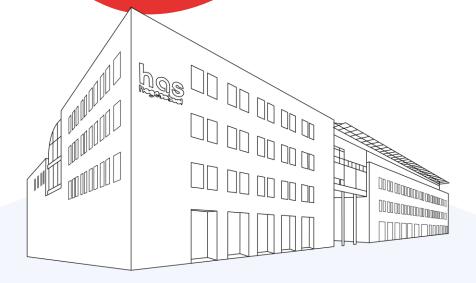
- Mild separation;
- Mild preservation;
- Total use no waste; utilising all the raw materials derived from a product
- Smart food processing; Cobots, vision, sensoring, AI etc.



#### **FACILITIES**

- Food Tech Brainport has several food grade (test and scaling-up) Fieldlabs.
- Innovative products and applications can be tested and manufactured in an open field lab environment, bringing them to market at an accelerated pace.

## BRABANT IS BRIGHT



#### **HAS Hogeschool**

STAFF MEMBERS

**450** 

**STUDENTS** 

3,000

PARTICIPANTS IN PROFESSIONAL COURSES

**300** 

#### **EXPERTISE AND RESEARCH CENTRES**

**15** 

HAS currently has 15 expertise and research centres, and its Sustainable Protein Sources, Precision Livestock Farming and Protein Transition in Food ERCs are all active in fields of great current relevance.

- 1. Design Methods in Food
- 2. Future Food Systems
- 3. Food and Health
- 4. Green Health
- 5. Healthy Farming
- 6. Innovative Bio-Monitoring
- 7. Innovative Entrepreneur ship in Rural Areas
- 8. Location Intelligence
- 9. New Business Models for Agriculture and Food Transition

- 10. New Cultivation Systems
- 11. Plant-Soil Health
- 12. Sustainable Protein Sources
- 13. Precision Livestock Farming
- 14. Protein Transition in Food
- 15. Sustainable Production

## **Quality Research Institutes**

## **HAS University of Applied Sciences**

**HAS University** distinguishes itself in the Agrifood educational sector because of its focus on working together with farmers and food industry to effectively implement new knowledge and technologies in Agrifood business operations.



#### **OBJECTIVES**

HAS University is truly an enterprising, outward-focused university with a comprehensive educational programme in agribusiness, food and the environment. As a result, 70% of HAS graduates are employed within two months of graduating.



#### **FACILITIES**

- Insect Lab
- BrightBox Venlo



#### **KEY CHARACTERISTICS**

HAS University knowledge transfer
HAS' knowledge transfer is consequently
another important source of interns for
local companies, thanks to their
understanding of innovation in Agrifood
production and processing. HAS has
initiated a number of programmes to
support companies in themes such as
food, green areas, agribusiness, animal
and the environment.





# Food-tech showcases



**Bodec** is a leading innovator in Agrifood driving innovations and experiments in which colours, flavors, protein and fibres can be used for food applications.



**Marel**'s principal site is in Boxmeer in Brabant with 1,500 employees and is also the global headoffice and R&D centre for all of Marel's poultry processing activities.



Pascal Processing is the first and most complete European one-stop shop for HPP (new preservation techniques).





"Brabant is ideal for export because of its location. We really need specialist knowledge and skills in our factory; our people in Cuijk are just very good at this."

SIJMON HAGE, Site Director **Testimonial** 

Danone



#### **FEEDING BABIES**

Nutricia is part of the French food company Danone. Its products range from baby foods to special clinical nutrition and diet products.



#### **BRABANT BUSINESS**

The production facility in Cuijk is the largest baby milk powder factory in Europe, and also manufactures specialized infant formula. More than 500 people in this facility make 600 different products under the Nutricia brand name, feeding 3.5 million babies in more than 90 countries each day.



#### TALENT AND LOCATION

The local availability of talent played a major role in choosing the location. Danone's partnership with the Laboratory School and TechnoPromo in Cuijk is instrumental in getting more young people interested in foods production and technology and is thereby creating a talent pool for the future. Also the company's international research center Danone Nutricia Research in Utrecht is closeby. Moreover, the city of Cuijk was able to offer the right location for this huge factory, which was not easy to find.



"Our Brabant plant fits in our sustainability: less water, less energy, less emissions, less residues. We process the potatoes as optimally as possible."

BERT JAN MARIS,

Plant Manager Lamb Weston – Bergen op Zoom

## **Testimonial**

#### Lamb Weston



#### **PROCESSING POTATOES**

Lamb Weston meets the growing demand for existing and new frozen potato products around the world.



#### **BUSINESS IN BRABANT**

The company built its production plant in Bergen op Zoom in 2016. Three years later, it established a brand new Corporate Center in Breda, which acts as the company's main working location.



#### **KEY LOCATION FACTORS**

The Netherlands' world-class research institutes are a breeding ground for innovative partnerships in the agrifood sector. And Brabant is not only an ideal location for the supply and processing of potatoes, but also for the distribution of frozen potato products. Most of the transportation with Europe is done by train and barge. Moreover, with its Corporate Center in Breda, the company will also be well positioned for recruiting and retaining talent.

